Before the

Federal Communications Commission

Washington, D.C. 20554

In the Matter of	)	
	)	
Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems	)	CC Docket No. 94-102
	)	
Phase II Implementation Report	)	TRS No: 808439

To: The Commission

QWEST WIRELESS, LLC AND TW WIRELESS, LLC
REPORT ON ENHANCED 911 PHASE II IMPLEMENTATION

Pursuant to Section 20.18(i) of the Commission's rules, 47 C.F.R. § 20.18(i), Qwest Wireless, LLC, on its own behalf and that of TW Wireless, LLC (collectively, "Qwest Wireless"), hereby submits their report on plans for implementing Phase II enhanced 911 ("E911") service.[1] The information provided herein is responsive to the requirements set forth in the Commission's rules[2] and is organized in accordance with the guidance provided Wireless Telecommunications Bureau's Public Notice of September 14, 2000.[3]

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[1] Qwest Wireless, LLC and TW Wireless, LLC are broadband PCS licensees. TW Wireless, LLC is a joint venture between Qwest Wireless and Touch America, Inc. in which Qwest Wireless holds a 50.1% equity and sole controlling ownership interest.

[2] Section 20.18(i) requires that licensees "report to the Commission their plans for implementing Phase II enhanced 911 service, including the location-determination technology they plan to employ and the procedure they intend to use to verify conformance with Phase II accuracy requirements, by November 9, 2000." 47 C.F.R. § 20.18(i).

[3] Public Notice, *Wireless Telecommunications Bureau Provides Guidance on Carrier*

(continued...)

BACKGROUND/CONTACT INFORMATION

(1) Carrier Identifying Information

Following is the TRS number for Qwest Wireless, LLC. (As TW Wireless, LLC has not been subject to FCC Form 499 filing obligations to date, it does not yet have a TRS number.) Both licensee's respective markets are listed in Attachment A.

- Qwest Wireless, LLC, TRS No. 808439

(2) Contact Information

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[3] (...continued)
Reports on Implementation of Wireless E911 Phase II Automatic Location Identification, CC Docket No. 94-102, DA 00-2099 (rel. Sept. 14, 2000). Qwest Wireless acknowledges that the Public Notice provided "guidance" for the filing of carrier implementation reports. In the instant filing, Qwest Wireless has provided responsive information under Section 20.18(i), but has redacted individual vendor names and excluded certain material where business and proprietary concerns so warranted.

E911 PHASE II LOCATION TECHNOLOGY INFORMATION

(1) Type of Technology

Qwest Wireless is a broadband PCS licensee with a CDMA 1900 network. Based on current technology and vendor representations received in response to multiple requests for information ("RFIs") and requests for proposals ("RFPs"), Qwest Wireless currently intends to test and implement a network-based automatic location information ("ALI") technology throughout its service territory. (Qwest Wireless' service areas are detailed in Attachment 1.) While Qwest Wireless has not determined a specific vendor, it is considering a number of different technologies, including TDOA, AOA and EOTD, and the company intends to test network-based solutions from at least two vendors in the coming months.

Qwest Wireless reserves the right to change its plan and select an alternative ALI technology, as permitted under the Commission's rules.[4] In this regard, Qwest Wireless also intends to conduct tests of a so-called "hybrid" solution. As Qwest Wireless has previously advised the Commission, it has already participated in testing for handset-based solutions and in the standardization process for handset-based and hybrid solutions.[5] Generally, Qwest Wireless believes that a hybrid solution may, in fact, serve public safety interests more effectively than a network-based solution, as it is expected to provide greater accuracy with higher probability and can more easily be adapted over time to account for technological changes and advances. (Indeed, Qwest Wireless has previously informed the Commission of the potential cost and

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[4] *See Third Report and Order*, 14 FCC Rcd. 17388, ¶ 89 (1999).

[5] *See* U S WEST Wireless, LLC, Comments filed in CC Docket No. 94-102, June 17, 1999, at 2-3; U S WEST Wireless, LLC, Petition for Waiver of Section 20.18(e) of the Commission's Rules, CC Docket No. 94-102, filed Feb. 4, 1999, at 5-7.

public safety benefits of a handset-based or hybrid solution.)[6] However, based on current information from vendors, it appears that ALI-capable handsets necessary to implement a hybrid or handset-based solution will not be available in time to comply with the October 1, 2001 deadline for carriers to initiate the sale of such handsets to customers.[7] Responses to the RFPs and RFIs Qwest Wireless sent to vendors confirm that ALI-capable handsets are not commercially available and, indeed, will not be available for *testing* until 4Q2001. In light of current vendor projections, Qwest Wireless has tentatively opted against pursuing a handset-based or hybrid solution. In sum, the handset deployment deadlines of the Commission's rules, and the current state of ALI handset technology and testing, effectively preclude Qwest Wireless, at this date, from selecting a hybrid or handset-based solution for purposes of the instant filing.

(2) Testing and Verification

Qwest Wireless is currently scheduling trials for the above-mentioned technologies. Testing hardware and software from our existing vendors and selected Phase II vendors was not available until 4Q2000, but testing is now planned and will be conducted in accordance with OET Bulletin 71 and the CDMA Development Group ("CDG") standard methodologies.[8] Irrespective of PSAP requests, Qwest Wireless plans trials for network solutions using pre-release equipment from various vendors in accordance with the timetable described below.

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[6] *See* U S WEST Wireless, LLC, Comments filed in CC Docket No. 94-102, June 17, 1999, at 2-3; U S WEST Wireless, LLC, Petition for Waiver of Section 20.18(e) of the Commission's Rules, CC Docket No. 94-102, filed Feb. 4, 1999, at 5-7.

[7] *See* 47 C.F.R. § 20.18(g)(1)(A).

[8] Federal Communications Commission, Office of Engineering and Technology, *Guidelines for Testing and Verifying the Accuracy of Wireless E911 Location Systems*, OET Bulletin No. 71 (rel. April 12, 2000).

Testing of the network-based solution is anticipated to be accomplished in three stages, beginning in 1Q2001. Stage 1, anticipated to last 6-8 weeks, requires the installation and configuration of new software upgrades necessary to support E911 Phase II systems. This involves software load testing, including sanity and reliability testing.[9] The second stage, also anticipated to last 6-8 weeks, involves testing in accordance with the CDG methodology, including establishment of the test environment, and testing of Phase II systems with non-ALI capable handsets. If PSAPs are capable of receiving and utilizing Phase II information, this stage also involves end-to-end testing with PSAPs. Finally, the third stage -- again, anticipated to last 6-8 weeks -- involves evaluation and analysis of the testing data. Thus, assuming that no unforeseen difficulties arise and assuming that the relevant PSAPs are able to participate in testing, Qwest Wireless anticipates that testing may be completed sometime during 3Q2001.

As noted above, Qwest Wireless also intends to test hybrid solutions during this period, based on product availability. Many of the software upgrades that Qwest Wireless will implement and test during the first testing stage are necessary for both network- and handset-based or hybrid solutions. Qwest understands that the ALI-capable handsets themselves, however, are not anticipated to be available for testing until 4Q2001. Should ALI-capable handsets become available for testing in advance of that date, Qwest Wireless may reassess this schedule and pursue handset trials as well.

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[9] Qwest Wireless notes that it, like other carriers, installs software upgrades on a regular basis; therefore, this preliminary E911 Phase II testing will *not* incorporate the commercial software releases to be utilized at the time that Phase II service is implemented. Qwest Wireless anticipates testing its upcoming commercial software releases during its implementation of its Phase II solution. *See* discussion *infra*.

(3) Implementation Details and Schedule

For the network-based solution, Qwest Wireless will need to test and load new software releases from existing equipment vendors, including Release 17.0 from Lucent, 9.5 from Ericsson, and LWW0008 from Nortel, which are not anticipated to be available until 3Q2001. Therefore, Qwest Wireless has tentatively determined that 3Q2001 as the feasible time period for initiating formal implementation of its E911 Phase II systems. As noted above, beginning in 3Q2001 and without regard to PSAP Phase II service requests, Qwest Wireless will implement software upgrades from existing equipment vendors to support E911 Phase II systems for its Lucent and Ericsson/Nortel network architecture. The new software releases will need to be installed and configured to support Phase II systems; as noted above, this involves software load testing, including sanity and reliability testing, and is anticipated to take 6-8 weeks.

The second stage of implementation, also anticipated to last 6-8 weeks, involves testing in accordance with the CDG methodology, including establishment of the test environment, and testing of Phase II systems with non-ALI capable handsets. As before, if PSAPs are capable of receiving and utilizing Phase II information, this stage also involves end-to-end testing with PSAPs. Finally, formal deployment of a network-based solution will be implemented on a market-by-market basis as determined by PSAP requests and requirements. If the PSAP and the ILEC (which provides ALI database services) are prepared, no systems work will be required and existing facilities, such as databases and trunks, can be utilized. This will depend on PSAP readiness on a market-by-market basis. As noted above, moreover, some implementation activities will be initiated without regard to PSAP requests for Phase II service.

Qwest Wireless notes that complications may arise during testing of the new commercial software releases, and may affect this tentative deployment timetable. Realistically, given

anticipated PSAP capabilities and the need to ensure compatibility of a network E911 Phase II solution with generic commercial software upgrades, it appears that testing with PSAPs during 1Q2002 (late 4Q2001 at the earliest), and that full implementation in a given market -- again based on PSAP requests and readiness -- is not likely feasible until sometime during 3Q2002.

(4) PSAP Interface

Qwest Wireless currently uses a service bureau as its PSAP interface for Phase I functionality. The service bureau has indicated that its interface will accommodate Phase II capabilities according to standards, and Qwest Wireless tentatively intends to utilize a service bureau for Phase II purposes as well. Where a PSAP requests Phase II service, Qwest Wireless will implement software and hardware for Phase II functionality and test the Phase II service via the service bureau to verify end-to-end E911 Phase II functionality. Qwest Wireless notes that PSAPs themselves will need to upgrade the E911 network, and that PSAPs' previous Phase I deployment efforts (if any) may affect carriers' ability to rapidly deploy Phase II services.

(5) Existing Handsets

As Qwest Wireless has tentatively selected a network-based solution for purposes of the instant filing, this question is not applicable. Nevertheless, as noted above, Qwest Wireless intends to continue its testing and consideration of viable hybrid solutions as an alternative compliance approach. Based on information provided by vendors in response to an RFP issued to Qwest Wireless' vendors, Qwest Wireless anticipates that ALI-capable handsets will be available for testing purposes during 4Q2001; procurement, testing, planning and commercial availability of ALI-capable handsets is expected in the second half of 2002.

(6) Location of Non-Compatible Handsets

As Qwest Wireless has tentatively selected a network-based solution for purposes of the instant filing, this question is not applicable.

(7) Other Information

To the best of our knowledge, Qwest Wireless has received no Phase II requests from PSAPs, to date. As to additional information that will assist the Commission and affected parties, such as PSAPs, "in monitoring and coordinating the deployment of E911 Phase II in accordance with the timetables set forth in the Commission's rules,"[10] Qwest Wireless notes that its deployment obligations are also necessarily contingent on PSAPs being "capable of receiving and utilizing the data elements associated with the service," and having a cost recovery mechanism in place.[11] Qwest Wireless has not been notified as to whether any PSAPs in its markets have met these prerequisites.

CONCLUSION

As discussed herein, the instant report is submitted on behalf of Qwest Wireless, LLC and TW Wireless, LLC pursuant to the requirements set forth in Section 20.18(i) of the Commission's rules. Qwest Wireless is committed to meeting its Phase II obligations and is working toward this end. In the event that additional information is requested, Qwest Wireless

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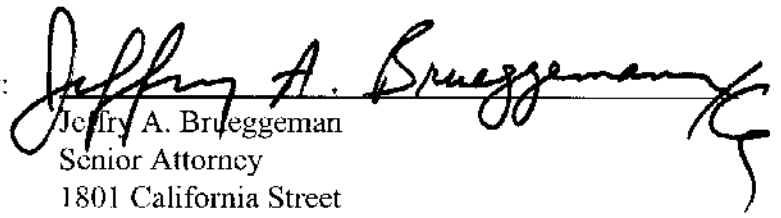
[10] Public Notice at 3.

[11] 47 C.F.R. § 20.18(j).

will consult with Commission staff to discuss appropriate means of ensuring that proprietary information, or information subject to nondisclosure agreements, is not publicly disclosed.

Respectfully submitted,

QWEST WIRELESS, LLC

By: 

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November 9, 2000

ATTACHMENT 1

Except as otherwise indicated, all service areas listed below are Basic Trading Areas ("BTAs"). Qwest Wireless notes that a number of the licenses for these service areas have been partitioned and/or disaggregated to other licensees, so other entities are licensed to provide broadband PCS service to particular communities on the applicable D/E Block spectrum within these BTAs.

Qwest Wireless, LLC Broadband PCS Service Areas

Albuquerque, NM
Bend, OR
Cheyenne, WY
Colorado Springs, CO
Coos Bay-North Bend, OR
Denver, CO
Eugene-Springfield, OR
Flagstaff, AZ
Ft. Collins-Loveland, CO
Gallup, NM
Grand Island-Kearney, NE
Grand Junction, CO
Greeley, CO
Hastings, NE
Klamath Falls, OR
Lincoln, NE
Logan, UT
Longview, WA
Medford-Grants Pass, OR
Minneapolis, MN
Nogales, AZ
North Platte, NE
Omaha, NE
Phoenix, AZ
Portland, OR
Prescott, AZ
Provo-Orem, UT
Pueblo, CO
Rochester, MN
Rock Springs, WY
Roseburg, OR
Salem-Albany-Corvallis, OR
Salt Lake City, UT
Santa Fe, NM
Scottsbluff, NE
Seattle, WA (licensed on Major Trading Area ("MTA") basis)

Qwest Wireless, LLC Broadband PCS Service Areas (cont.)

Sierra Vista-Douglas, AZ
Sioux City, IA
St. Cloud, MN
Tucson, AZ
Willmar-Marshall, MN
Yakima, WA
Yuma, AZ

TW Wireless, LLC Broadband PCS Service Areas

Billings, MT
Bismark, ND
Boise-Nampa, ID
Bozeman, MT
Butte, MT
Casper-Gillette, WY
Fargo, ND
Fergus Falls, MN
Great Falls, MT
Helena, MT
Idaho Falls, ID
Kennewick-Pasco-Richland, WA
Lewiston-Moscow, ID
Missoula, MT
Pocatello, ID
Rapid City, SD
Riverton, WY
Spokane, WA
Twin Falls, ID
Walla Walla, WA-Pendleton, OR
Wenatchee, WA
Yakima, WA